Interagency Coordinating Group
Meeting Notes

Arizona Department of Water Resources
Middle & Upper Verde Conference Rooms
October 17th, 2006

ICG Members Present:
Uta Brotherton, Arizona Department of Commerce
Al Bush, Bureau of Land Management
Bob Celaya, Arizona State Land, Office of State Forester
Mike Crimmins, University of Arizona Cooperative Extension
Chuck Cullom, Central Arizona Project
Dave Dewalt, NASS
Mark Grange, Arizona Department of Administration
Herb Guenther, Arizona Department of Water Resources
Mike Hart, Arizona State Land Department, Office of State Forester
Carn Hunter, Arizona Department of Homeland Security
Chuck McHugh, Arizona Department of Emergency Management
Nick Melcher, U.S.Geological Survey
Alan Nulliner, U.S.D.A. Farm Service Agency
Don Paulus, Natural Resources Conservation Service
Del Smith, Arizona Corporation Commission
Alan Stephens, Governor's Office
Roy Tanney, ADRE
Mark Weise, Arizona Game and Fish Department

Welcome & Introductions
Herb Guenther (Co-chair), Arizona Department of Water Resources
Chuck McHugh (Co-chair), Arizona Division of Emergency Management

Arizona Drought Preparedness Plan – 1 Year Update & Annual Report
Susan Craig, Arizona Department of Water Resources

Statewide Drought Program

- The Arizona Drought Preparedness Plan (ADPP) outlines a strong program structure and collaborative solutions for implementing drought preparedness activities
- Local Drought Impact Groups (LDIGs) are being formed across the state - to date 3 counties have formed local groups; 2 counties are in process
- Pima County has a Drought Task Force that will accomplish the goals of a local drought group
- The other 9 counties to form local groups over the next 6-9 months

National Model

- Arizona's program structure for drought plan implementation has been recognized at the national level and is being used as a model for other states.
- 38 states have drought plans – most are reactive rather than proactive
- AZ has a proactive plan that emphasizes drought planning and preparedness, innovation and action
- Four states have state drought coordinators - AZ, HI, SC (currently vacant) and NM

Annual Report Review

General -

- Annual Report due to the Governor November 15th
- Structure in place to address drought preparedness is effective and includes: the Monitoring Technical Committee (MTC), the Interagency Coordinating Group (ICG), LDIGs, the Statewide Drought Program, and Conservation Programs – Statewide Conservation Office and regional Active Management Area programs

Arizona Drought Preparedness Plan - Proposed Changes -

- The Statewide Drought Program, instead of the ICG, will draft the Annual Report for the Governor and request comments from the group prior to submittal
- Evaluate drought by watersheds versus climate divisions - more meaningful from a hydrologic standpoint
- Local Area Impact Assessment Groups (LAIAGs) are now referred to as Local Drought Impact Groups (LDIGs)
- Clarify different ways of defining drought - Information will be added on the different ways of measuring and defining drought and their relationship to one another (e.g. hydrological drought vs. meteorological drought)
- Explain drought impact data use and data transmission - An explanation of how drought impact data will be used and how data should be transmitted will be added
- Define declarations and designations - Declarations and designations will be defined
- References to notification of changes in drought status, climate status updates and climate condition reports will be revised – the monthly Drought Monitor Report e-mailed each month provides notification and satisfies the requirements of the plan
- More explanation will be added to clarify that mitigation and response strategies are locally defined to correspond with drought impacts and drought status maps delineated by watershed

No comments were received – the above proposed changes will be incorporated into the 2006 Drought Preparedness Annual Report

Resource Needs –

- Funding for coordination efforts in establishing Local Drought Impact Groups
- Funding for drought education
- Funding for Drought Indicator & Trigger Tool for community water systems
- Support resource needs for the MTC to improve monitoring and data collection
- Support resource needs of the Local Drought Impact Groups

Web Site

- The Statewide Drought Program has created a new web site that highlights activities related to the community water systems, MTC, ICG, and LDIGs

ADWR Conservation Programs – Water Efficiency

- Arizona Rinse Smart: pre-rinse spray valves have demonstrated a 40% water savings in gallons/year
- Patch the Pipe: leak detection program - provides state-of-the-art equipment for leak detection to assist utilities who typically report 10-20% unaccounted for losses

State Drought Monitoring Technical Committee (MTC) Update
Anton Haffer, National Oceanic and Atmospheric Administration (representing the Monitoring Technical Committee)

Overview:

- State Drought MTC is comprised of many sectors which supports the various technical recommendations that are made on a monthly basis
- Monthly Drought Monitor Report is developed and distributed via the ADWR web site
- Technical support is provided to the LDIGs on a regular basis
- The Arizona approach to drought monitoring was shared at numerous conferences and with the media throughout the year
- Expanded membership is an ongoing process to include those agencies that can provide drought monitoring data
- Challenges lie in a continued drought with intermittent rainy seasons, especially as southeastern Arizona experienced this past summer
- Drought Monitor Report format has been updated and revised within the last six months
- Improved resolution of status conditions as a result of depicting conditions by watersheds rather than climate divisions
- Arizona is proactive in drought forecasting and preparation
- LDIGs need to contribute local impacts and verification of local drought status conditions produced from the MTC

- The drought status maps utilize the Standard Precipitation Index (SPI) as a drought indicator for the short-term map and SPI and streamflow data for the long-term map
- Corroborating data is completed in two steps: calculate drought status, and then integrate additional data to validate drought status (adding geographical accuracy)
- Rainlog.org is community-based rainfall monitoring – a collaborative network of volunteer weather observers to enhance the collection of local area data
- Groundwater index wells show a variation over the last year
- U.S. Drought Monitor in 2005 (wet winter) showed less drought conditions than the U.S. Drought Monitor in 2006 (dry winter)
- Percent of snowpack data varies across the state from the lowest of 17% in the Central Mogollon Rim watershed to 102% in the Upper Colorado River Basin watershed
- Precipitation comparisons between Water Year 2005 and Water Year 2006 show an improvement in precipitation for most of the state
- Reservoir status across Arizona show Lake Mead and Lake Powell to be around 50% of capacity; the Verde River System is also at about 50% capacity; while the Salt River System is at 68% of capacity
- Moderate El Niño this year - above-normal rain fall predicted for January through March

MTC Recommendations:

- Capitalize on partnerships to expand data networks
- Integrate groundwater level trends
- Create a drought impacts database
- Re-evaluate objective drought analysis technique
- Develop a drought assessment tool
- Integrate drought and flood data information into a robust hydrologic display system
- Review and consider updating the Executive Order on the Drought Emergency Declaration to reflect our dynamic drought preparedness plan

Forest Health Update

Bob Celaya, Forest Health Specialist for the Office of the State Forester, Arizona State Land

- 2006 fire season began early in February in Payson, however, the March snow fall eased concerns
- Comparing the 2006 fire season to the previous four years, 2006 had one of the lowest number of fires and the lowest amount of acreage burned
- Fire prevention efforts include the development of 12 Community Wildfire Protection Plans
- Arizona's Firewise Program includes13 recognized communities

- From 2001-2006 - 167 projects were funded for treatment of hazardous fuels on 27,701 acres at a cost of $16,381,338 (communities matching $14,180,831)
- Principal causes of poor forest health are from 100 years of fire suppression, livestock grazing and logging practices
- Pre-settlement fire frequencies depended on forest types (e.g. spruce-fir, mixed conifer, ponderosa pine, pinyon-juniper, and chaparral)
- Localized drought conditions currently occur in areas such as chaparral forests with the cypress beetle infesting junipers (e.g. Snowflake, AZ)
- Forests are more susceptible to fire and insects today vs. pre-settlement times
- Changes in species composition between 1962 and 1985: mixed conifer increased by 7.6%, aspen decreased by 1.3%, spruce-fir declined by .3%, ponderosa pine decreased by 6%
- Aerial surveys indicate significant forest insect activity currently exists throughout the Mogollon Rim
- Mixed conifer mortality on the Mogollon Rim during 2005 due to douglas-fir beetle and fir engraver beetle.

Rangeland Health Update
Don Paulus, Natural Resources Conservation Service

- NRCS has 24 field offices located throughout the state - provide on-the ground knowledge and data collection
- A survey was conducted by the field offices in September 2006 to assess impacts of the summer monsoon season on drought conditions – results are as follows:

Monitored	**March/April 2006**	**September 2006**	**Conditions - Better or Worse**
# of ranchers hauling water	1/3	1/5	better
Dryland crop production loss	73%	65%	better
Rangeland	40%	28%	better
Dry dirt ponds	65%	30%	better
Dirt pond storage capacity	25%	60%	better
Dry springs	30%	18%	better
Rangeland with no livestock water	40%	28%	better
Dry livestock wells	7%	14%	worse
Rangeland forage	44%	72%	better

- Dryland crops impacted include corn, melons, squash, small grain, fruit orchards, and pasture
- 43% average crop production loss was reported on over 61,000 acres of irrigated cropland
- Water sources affected are primarily surface water, but include some wells

- Irrigated crops impacted include chili, corn, squash, beans, cotton, small grains, alfalfa, fruit and nut orchards, and irrigated pasture
- Livestock numbers are down 25% (improved from 35%) from normal years
- Summer precipitation was normal to substantially above average for most portions of Arizona - northeast (esp. Navajo and Hopi Indian Reservations) received below average precipitation resulting in forage and water supply shortages
- Dirt pond storage was lost due to excessive runoff causing destruction of the dirt ponds
- Perennial grasses have died due to the extended drought and were replaced with annual species when the summer monsoon rains began

Wildlife Update
Mark Weise, Arizona Game and Fish Department

- Wildlife habitat composed of vegetation, water, cover, and space
- Reduced habitat quality makes it harder for wildlife to survive and breed
- Lower habitat quality leads to increased indirect mortality through predation, reduced production and recruitment
- Impacts tend to be cumulative as drought continues - wildlife populations continue to decline
- Drought impacts can be long-term, may result in permanent damage to habitat
- Indirect impacts result from plant mortality - habitats may take years to recover
- K-selected species such as deer are long-lived, have fewer young and populations take longer to rebound from drought impacts
- R-selected species such as quail are short-lived, have many young and populations are more resilient to annual impacts resulting in a quicker rebound from drought impacts
- All wildlife are impacted by drought including game and nongame, terrestrial and aquatic, predators and prey
- Sensitive species such as threatened or endangered are greatly impacted by long-term drought since these species are already impacted by other contributing factors (loss of habitat)
- Indirect impacts due to streams and ponds drying up also impact many species
- Drought tends to concentrate wildlife on remaining suitable habitat, making them all more susceptible to disease and predation
- Nuisance wildlife moves into “wet” urban habitats when outlying habitat no longer can support them
- Feeding nuisance wildlife reinforces this behavior and increases problems with wildlife-human interactions
- Declining wildlife represents a direct loss to the Arizona Game and Fish Department in license revenues

- Poor habitat quality results in increased management actions despite reduced funding
- Arizona Game and Fish Department typical water developments include: catchments, pot holes, storage tanks/drinkers, springs, wells/windmills
- 1996 and 2002 hauled approximately 1.4 million gallons of water to wildlife (typical year is approximately 600,000 gallons of water) - 2006 similar to 2002, currently at about 1.2 million gallons

Drought Emergency Declaration
Susan Craig, Arizona Department of Water Resources

- The Arizona Drought Preparedness Plan (ADPP) states – If drought conditions are present, the ICG will advise the Governor of changes in drought status and will request a declaration for a Drought Emergency by May 1 based on water supply status or by November 1, based on ancillary impacts
- There is a Drought Emergency Declaration in place for the state - original declaration dated June 1999
- In April, ICG recommended to the Governor that the declaration be maintained
- After some discussion, the ICG agreed to recommend maintaining the current declaration
- The ICG may consider a possible future recommendation to draft a new drought declaration to reflect Arizona's current drought situation
- ADWR, in coordination with the Governor's Office, will draft a press release for supporting the continuation of the current Drought Emergency Declaration
- Press release to serve as an education opportunity – drought conditions continue despite the wet summer

Drought Talking Points
Melanie Ford, Arizona Department of Water Resources

- Drought Talking Points (DTPs) were distributed to public information officers from the ICG represented state and federal agencies - comments were returned to ADWR and revisions were made
- The DTPs cover: background information on drought, drought severity, ways to reduce risk, and coordinated efforts for implementing the Arizona Drought Preparedness Plan (ADPP)
- ADWR will be coordinating with the NRCS and other state and federal public information officers on developing a communication plan to assist in developing drought related communication strategies
- Comment: Salt River Project, City of Tucson and Pima County should be involved as they are all developing conservation measures or drought plans

- Comment: Drought and conservation are separate issues and messaging should distinguish the difference – water conservation is important even when we are not experiencing drought conditions
- Comment: Practicing a low water-use lifestyle will help us to avoid potentially uncomfortable water use reductions in the future

The DTPs will be revised to incorporate the comments provided during the meeting and sent out for review.

Wrap-Up
Herb Guenther (Co-chair), Arizona Department of Water Resources

- Arizona is still in a drought situation
- Lack of precipitation has long-term impacts and will not end for some time
- Groundwater supplies are impacted by drought
- ICG will recommend that the Governor continue the Drought Emergency Declaration
- In the coming months, the ICG may recommend to the Governor that a new drought declaration be written to reflect Arizona's current drought situation

Next Meeting

March or April 2007